

Appl. No. : 10/782,680
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IN THE CLAIMS

Please amend Claims 34, 46, 48, 50, 59-60, and 73-74 as follows:

1. – 33. (Cancelled)

5 34. (Currently amended) A head-end apparatus adapted for providing a network-specific on-demand application to consumer premises equipment (CPE) of said network, the apparatus comprising:

at least one computer; and

10 at least one computer program ~~adapted to develop~~ having a plurality of instructions for developing a specific protocol useful in implementing said on-demand application according to the method comprising:

developing a set of first components adapted to communicate between said head-end and said CPE, said communication comprising:

15 establishing a communications session between said head-end and said

CPE;

specifying to said CPE a channel on which on-demand content may be accessed by said CPE; and

sending or receiving at least one message regarding functional modes;

20 developing a set of second components adapted to process said on-demand content delivered to said CPE; and

developing a set of third components adapted to cooperate with individual ones of said first and second components to control said functional modes specific to said on-demand application;

25 wherein each component of said set of first components, said set of second components, and said set of third components is associated with an individual one of a plurality of different multiple systems operator (MSO) environments; and

wherein, in response to a request for a particular application from a CPE within an individual one of said plurality of different MSO environments, said computer program of said head-end apparatus further selects for assembly and delivery individual ones of said set of first

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components, said set of second components, and said set of third components said selection comprising selection of individual ones of said sets specific to said individual one of said plurality of different MSO environments.

35. -- 45. (Cancelled)

5 46. (Currently amended) Customer premises equipment (CPE) adapted for operation within a content based network offering on-demand services according to at least one network-specific protocol, said CPE comprising:

a storage device; and

10 a digital processor operatively coupled to said storage device, said digital processor adapted to ~~run~~ for running at least one first software application stored on said storage device, said first software application having permissions from an OpenCable Application Platform (OCAP) monitor and comprising a plurality of components ~~adapted to~~ which, when executed on said processor:

15 communicate between said CPE and another entity of said network;

process the content delivered to said CPE; and

enable a user of said CPE to control, via a user interface, playback of said content according to said network-specific protocol;

20 wherein at least one of said plurality of components comprises a shared component which is ~~adapted to be~~ utilized by one or more second applications also having permissions from an OCAP monitor and simultaneously running on said CPE.

47. (Previously presented) The CPE of Claim 46, wherein said CPE comprises a digital settop box (DSTB) with Java-based middleware, and said at least one first software application comprises at least one class and at least one interface disposed within an application directory hierarchy.

25 48. (Currently amended) The CPE of Claim 47, wherein said CPE ~~is adapted to:~~ receives said at least one first application over said network; and subsequent to said receipt, launches said at least one first application to configure at least one path to at least one of said plurality of components.

49. (Previously presented) The CPE of Claim 48, wherein said CPE further comprises

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a plurality of said second applications, said plurality of said second applications being enabled to access said at least one component via at least one of said at least one configured paths.

50. (Currently amended) A method of developing the specific protocol useful for delivery of content from a first node of a network to a second node thereof via a server entity of said first node, the method comprising:

receiving a plurality of media interface components, wherein individual ones of said components ~~adapted to~~ implement different ones of a plurality of network-specific protocol;

developing a configured application by selecting individual ones of said plurality of components to be utilized within a single software application; and

developing at least one path to said selected individual ones of said plurality of media interface components, said path being accessible only to authorized entities;

wherein said at least one path and said media interface components cooperate to provide network specific on-demand services; and

wherein multiple paths to said individual ones of said plurality of media interface components may be utilized to enable simultaneous use of said individual ones of said plurality of media interface components in multiple distinct software applications.

51. (Previously presented) The method of Claim 50, wherein said configured application is run on a consumer premises equipment (CPE).

52. (Previously presented) The method of Claim 51, wherein said act of developing a plurality of media interface components comprises developing a plurality of Java Media Framework components.

53. (Previously presented) The method of Claim 52, wherein said act of disposing said plurality of media interface components comprises disposing a plurality of classes and interfaces within the directory hierarchy structure of said application.

54. (Previously presented) The method of Claim 51, wherein said act of disposing said plurality of media interface components comprises:

providing said components to said CPE;

providing said software application to said CPE; and

assembling said configured application at said CPE using at least said components and

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said software application.

55. – 56. (Cancelled)

57. (Previously presented) The head-end apparatus of Claim 34, wherein at least one of said first set of components comprises a Java DataSource.

5 58. (Previously presented) The head-end apparatus of Claim 57, wherein at least one of said second set of components comprises a Java MediaHandler.

59. (Currently amended) The head-end apparatus of Claim 58, wherein at least one of said third set of components comprises a controller ~~adapted to access~~ which accesses said Java DataSource to cause said at least one message to be sent between said head-end and said CPE,
10 said at least one message causing at least one corresponding functional mode to be invoked.

60. (Currently amended) The head-end apparatus of Claim 34, wherein said act of developing said set of second components further comprises developing a player component ~~adapted for implementing~~ which implements at least one of said set of second components.

61. – 72. (Cancelled)

15 73. (Currently amended) Customer premises equipment (CPE) ~~adapted~~ for operation within a content delivery network offering one or more services each utilizing a network-specific protocol, said CPE comprising:

a storage device, said storage device ~~adapted to store~~ for storing a plurality of components utilized by said one or more services thereon; and

20 a digital processor in data communication with said storage device, said digital processor ~~adapted to run~~ running a first software application and a plurality of second software applications, said first and said second software applications stored on said storage device;

wherein said first software application has permissions from an OCAP monitor application to permanently identify individual ones of said plurality of components within said
25 CPE by attachment of prefixes to each; and

wherein said plurality of second software applications utilize said prefixes to make use of said individual ones of said plurality of components, thereby sharing these across multiple applications.

74. (Currently amended) The CPE of Claim 73, wherein at least one of said plurality

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of second software applications comprises an application adapted to:

enable communication between said CPE and another entity of said network;

process content delivered to said CPE; and

enable a user of said CPE to control, via a user interface, playback of said content

5 according to said network-specific protocol.

75. (Previously presented) The CPE of Claim 73, wherein said CPE comprises Java-based middleware.

76. (Previously presented) The CPE of Claim 75, wherein each of said plurality of second software applications utilizes a Java virtual machine (JVM), and said prefixes comprise
10 Java media framework (JMF) commit prefixes, said commit prefixes of said individual ones of said plurality of components being called by said JVM to incorporate the functionality thereof.

77. (Previously presented) The CPE of Claim 73, wherein said individual ones of said plurality of components are arranged in a hierarchy such that said plurality of second software applications are only permitted access to certain ones of said plurality of components.

15 78. (Previously presented) A method of developing one or more specific protocols useful for delivery of media content from a network, said method comprising:

receiving at a consumer premises device a plurality of media interface components;

modifying a path identifier of individual ones of said plurality of media interface components; and

20 enabling said individual ones of said media interface components to be called by more than one software application via said modified path identifiers;

wherein said individual ones of said plurality of media interface components are each useful with individual ones of said one or more specific protocols;

25 wherein redundancy is eliminated by enabling said more than one software applications to be developed by calling one or more of said individual ones of said components via respective ones of said path identifiers simultaneously.

79. (Previously presented) The method of Claim 78, wherein each of said more than one software applications comprises a Java virtual machine (JVM) and is configured to call said individual ones of said plurality of media interface components via said modified path identifiers.

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80. (Previously presented) The method of Claim 79, wherein said plurality of media interface components comprise Java Media Framework (JMF) components configured to:
communicate between said consumer premises device and another entity of said network;
process said media content delivered to said consumer premises device; and
5 enable a user of said consumer premises device to control, via a user interface, playback of said media content according to one of said one or more specific protocols.

81. (Previously presented) The method of Claim 79, wherein said individual ones of said plurality of media interface components are each disposed within a directory hierarchy structure of a second application accessible to said more than one software applications.

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